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United States Patent [19]

Normington et al.

[11] **Patent Number:** 5,952,082[45] **Date of Patent:** Sep. 14, 1999[54] **ELECTROPHOTOGRAPHIC RECORDING
MEDIUM AND METHOD**[75] **Inventors:** Charles A. Normington; Gregory E. Pulchinski; Gary G. Schiller, all of Wisconsin Rapids, Wis.[73] **Assignee:** Consolidated Papers, Inc., Wisconsin Rapids, Wis.[21] **Appl. No.:** 08/896,974[22] **Filed:** Jul. 18, 1997[51] **Int. Cl.⁶** B32B 3/00[52] **U.S. Cl.** 428/195; 428/206; 428/211;
428/216; 428/331; 428/382; 428/411.1;
428/423.1; 428/479.6; 428/511; 428/513;
427/240; 427/356; 427/362; 118/52; 118/117;
118/123; 118/227; 118/410[58] **Field of Search** 428/195, 211,
428/215, 216, 423.1, 411.1, 511, 382, 331,
206, 207, 513, 479.6; 427/240, 356, 420,
362; 118/123, 52, 410, 411, 413, 227, 117[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Deborah Jones**Assistant Examiner**—Abraham Bahta**Attorney, Agent, or Firm**—Juchner Pyle Piontek & Underwood[57] **ABSTRACT**

A recording medium particularly suitable for electrophotographic copying is characterized by coated paper that for a given basis weight has proportionally less coating and proportionally more fiber than conventional coated paper made for electrophotographic processes. The base sheet of the coated paper is preferably formed square on a paper machine wet end and has on the order of 40–50% less filler than conventional sheet paper made for electrophotographic processes. After being formed and dried, the base sheet is provided with a top coat weight that is approximately 60% less than the typical coat weight used for conventional paper. The coating is formulated to have sufficient viscosity to stay more on the surface of the base sheet. The coated sheet is calendered to a medium gloss on the order of a 75° TAPPI gloss of about 45, both to preserve a degree of surface roughness to enhance runnability of the paper through an electrophotographic copier and to provide a pleasant and easily readable surface. In improving on conventional paper, the paper of the invention provides for good fusion of dried toner on the paper at marginal lower temperatures.

41 Claims, 3 Drawing Sheets

